

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number
WO 2005/064862 A1

(51) International Patent Classification⁷: **H04L 12/56**

(74) Agents: **HOFFMANN . EITLE** et al.; Arabellastrasse 4,
81925 München (DE).

(21) International Application Number:
PCT/EP2003/014789

(22) International Filing Date:
23 December 2003 (23.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **TELEFONAKTIEBOLAGET LM ERICSSON** (publ)
[SE/SE]; S-164 83 Stockholm (SE).

(72) Inventors; and

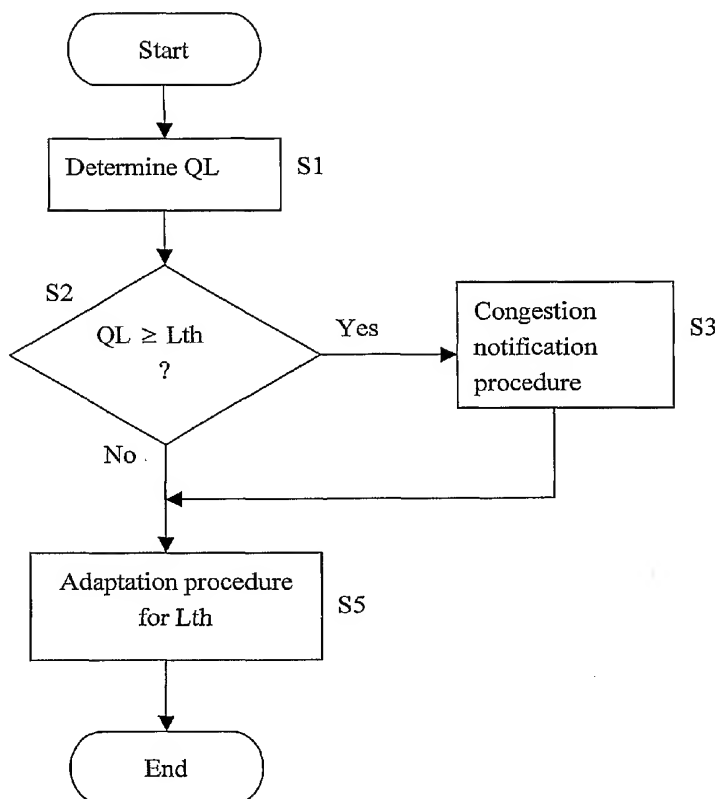
(75) Inventors/Applicants (for US only): **WIEMANN, Henning** [DE/DE]; Monheimsallee 29, 52062 Aachen (DE).
LUDWIG, Reiner [US/DE]; Bergstrasse 18, 52393 Huertgenwald (DE).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD AND DEVICE FOR CONTROLLING A QUEUE BUFFER



(57) Abstract: A queue buffer control system is described, in which a queue length parameter QL is compared with a length threshold value Lth for triggering a congestion notification procedure that comprises a decision procedure for deciding whether to perform congestion notification or not. Also, an automatic threshold adaptation procedure S5 for adapting the threshold Lth on the basis of an estimated link capacity value LC is provided. The automatic threshold adaptation procedure S5 is operable in one of at least a first and a second adaptation mode, the first adaptation mode being associated with minimizing queuing delay and adapting the threshold value Lth on the basis of $n \cdot LC$, where $n \geq 1$, and the second adaptation mode being associated with maximizing utilization and adapting the threshold value Lth on the basis of $m \cdot LC$, where $m > 1$ and $m > n$.

WO 2005/064862 A1



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.